BRIEFER ARTICLES.

ADVENTITIOUS BUDS ON LEAVES OF DROSERA ROTUNDIFOLIA.

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WHEN collecting plants of *Drosera rotundifolia* for class use, I found several leaves bearing numerous (from two to ten) young plants on their upper surfaces (Fig. 1). This fact was first noted about Sept. 15, 1897.

So far as I can learn, this peculiarity of the sun dew has escaped observation until the present year. At the time I made the discovery I knew of no other similar observations, but have since learned that Mr. James A. Graves,[1] of Susquehanna, Pa., has noted the same thing this fall. That these facts have never before been noticed seems all the more remarkable since *Drosera rotundifolia* has been made the object of such careful scrutiny by Darwin and others because of its carnivorous habits.

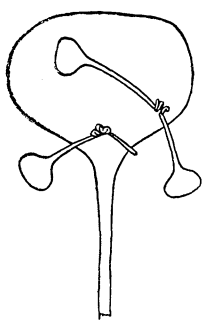

FIG. 1. — Leaf of *Drosera rotundifolia* with two young plants.

The most favorable spots for this peculiar development seemed to be among dense masses of Sphagnum, and the leaves producing the adventitious buds lay directly upon the wet moss. A few of the leaves had entirely severed their connection with the old plant, but no roots had developed in the young plants at the stage represented in the figure. Mr. Graves's Drosera developed the adventitious buds in a moist chamber.

The occurrence of the adventitious buds in such wet places suggests that the past extremely wet season may explain their discovery at this particular time; that is, the unusual amount of moisture has caused the formation of an unusual number of buds.

Another interesting fact observed was the occurrence of the peculiar glandular hairs of the leaves a short distance up on the stems of the young plants, as if the tissues of the stem still retained some of the peculiarities of leaf tissues.

[1] *The Plant World*, vol. i, no. 2.

Sections through the leaf and base of young stems have been made, but the apparatus at hand does not permit of a section thin enough to give structural details. The organic connection between the leaf and the base of the young stem is clearly shown, and the young plant evidently starts in connection with the fibro-vascular bundles of the leaf, but my sections do not clearly show the nature of the connection.

The cells of the very base of the young stem and the adjoining leaf cells were crowded with chlorophyll grains, while there were very few in the other leaf cells, showing clearly the much greater constructive activity (anabolism) of these tissues.

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NOTES ON THE FOSSIL MAMMALIA OF EUROPE.

CHARLES EARLE.

VI.

Remarks on the Fossil Tapiroids of France.

As far as our paleontological knowledge stands in regard to the evolution of the modern tapirs, this phylum arose in Europe and America at about the same time. In America we find in the Bridger the genus Isectolophus, which is considered to represent one of the stages leading to Tapirus.

Prof. Albert Gaudry has lately published an important paper[1] on the evolution of the teeth of fossil Tapiroids and refers remains found in the Middle Eocene of Argenton, France, to the American genus Colodon, which he includes in the tapir phylum. Now, in the first place, Colodon comes from the Oligocene, or White River Beds, whereas the beds at Argenton are equal to the Middle Eocene, or Bridger. The teeth which Professor Gaudry has referred to *Colodon minimus*, in my opinion, should be identified as those of the American genus Isectolophus, or a very closely related genus. This is more in harmony with the origin of the tapir's tooth, as in Colodon the metacone is concave, whereas in Isectolophus this cusp is convex, like that of the recent tapir.

[1] La dentition des Ancêstres des Tapirs, *Bull. Soc. Geog. de France*, p. 315. 1897.